

ABSTRACT OF THE DISCLOSURE

A turbofan engine includes in serial flow communication a first fan, second fan, multistage compressor, combustor, first turbine, second turbine, and third turbine. The first turbine is joined to the compressor by a first shaft. The second turbine is joined to the second fan by a second shaft. And, the third turbine is joined to the first fan by a third shaft. First, second, and third cooling circuits are joined to different stages of the compressor for cooling the forward and aft sides and center bore of the first turbine with different pressure air.